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(54) DISK BRAKE CALIPER HOUSING

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TEVE

Disc brake caliper housing - has pivotal spring strip device holding and urging apart pad carriers

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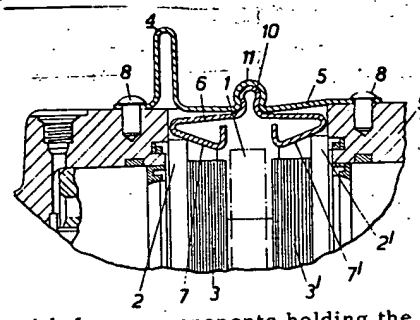
Two brake pad carriers ($2, 2_1$) with associated pads (3, 3_1) are pressed down by a device (4) which consists of two strip springs (5, 6) extending longitudinally at right angles to the faces of the brake disc (1), and across the disc. The lower spring (6) has sloping surfaces ($7, 7_1$) resting on the inner edges of the carriers ($2, 2_1$) and the device (4) supports itself stationary on the caliper housing (9) with force components holding the carriers and urging the pads away from the brake disc. Spring (6) has a central loop (10) held in a loop (11) of the upper spring (5) so that the spring (6) is pivotal to accomodate different pad carrying heights. 9.3.73. as 011406 Add to 1278747 (3pp).



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the two strip springs which form the spring device may result in different contact pressure of the sloping surfaces which engage upon the parts of the braking elements, in particular the brake pad carriers. This is particularly the result of manufacturing inaccuracies of the spring device as well as of the brake pad carriers.

It is an object of the present invention to modify this earlier arrangement to try to ensure equal retention forces on the braking elements in the caliper housing.

According to the present invention a disc brake caliper housing is adapted to contain pad carriers and has a spring device arranged to bear against respective parts of such carriers in such manner as to retain them otherwise than by friction in the housing and at the same time urge them in a direction away from each other, said device in use straddling a brake disc and having a part pivotally mounted so as to assist in accommodating differences in the dimensions of the pad carriers caused by manufacturing tolerances.

upper spring 5 leaving a safety gap so that the device has a limit to its springiness. With the thus resulting sloping surfaces 7 and 7' the spring 6 rests on the upper (as viewed here) inner edges of the pad carrier plates 2 and 2'. The upper strip spring 5 engages with its ends underneath the heads of two ribbed nails 8, which are arranged opposite to each other on both sides of the pad shaft so that the support 4 can support itself stationary on caliper housing 9 of the disk brake. This spring arrangement gives rise to forces having a radially directed retaining component (holding the pads + carriers in the shaft) and an axially directed separating component (urging the pads away from the brake disk).

The lower flat spring has in its middle part an eye-like portion or loop 10, directed upwards, which is held in a corresponding loop 11 of the upper spring 5, the loop 10 and the loop 11 may be bent for more than 180°, so that the loop 10 in the lower spring can be pushed into the loop 11 of the upper spring 5 only laterally

and thus it is taken along with the flat spring 5, resting on top, when it is lifted vertically from the disk brake.

By means of this design the lower spring 6 is pivotally around an axis perpendicular to its longitudinal extension. Thus it is possible that different heights of the pad carriers attributable to manufacturing tolerances, can be accommodated by the spring device.

WHAT WE CLAIM IS:-

1. A disc brake caliper housing adapted to contain pad carriers and having a spring device arranged to bear against respective parts of such carriers in such manner as to retain them otherwise than by friction in the housing and at the same time urge them in a direction away from each other, said device, in use, straddling a brake disc and having a part pivotally mounted so as to assist in accommodating differences in the dimensions of the pad carriers caused by manufacturing tolerances.

2. A housing as claimed in claim 1, the device comprising two spring strips having mating loops, one loop being held within the other loop, the axis of the pivot being perpendicular to the longitudinal edges of the spring strips and one strip being secured to the housing, the other strip forming said part.

3. A housing as claimed in claim 2, wherein the spring strip arranged to bear on the pad carrier has the smaller loop, both loops being disposed on that side of the spring strips remote from the brake disc.

4. A disc brake caliper housing in combination with a spring device substantially as hereinbefore described with reference to the accompanying drawing.

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FOR THE APPLICANTS.

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1425269 COMPLETE SPECIFICATION

1 SHEET *This drawing is a reproduction of the Original on a reduced scale*